

REMARKS

Claim 1-14 are pending. As a preliminary matter, Applicants have canceled claims 1-14 and added new claims 15-29. Support for the new claims can be found in the original claims and throughout the Specification. In particular, support is found in paragraphs 0016, 0017, 0027, 0072, and Example 2 of the application as published (U.S. 2006/0014206).

The Examiner has advanced a species election based on the various cell lines listed in claim 6. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1. Applicants respectfully request reconsideration of the species election in view of the following remarks.

The cell lines listed in claim 6 are linked in that they are all examples of eukaryotic cell lines that are suitable for transfection with vectors that direct the expression of voltage-gated ion channels (see paragraph 0074 of the published application). The invention as claimed herein is directed to an assay that utilizes eukaryotic cells that co-express a voltage-gated calcium channel and an inward rectifying potassium channel. In a preferred embodiment the invention includes the use of an HEK293 cell line that co-expresses an L-type voltage gated calcium channel complex (alpha 1C) and the Kir 2.3 inward rectifying potassium channel (C₁₋₆-37-3 cells) (paragraphs 0071 and 0072 of the published application).

The species selection of one eukaryotic cell line over another will not necessarily advance the determination of patentability of an invention that requires the co-expression and function of two other elements, i.e. a voltage-gated calcium ion channel and a specific type of potassium ion channel. These co-expressed elements can equally utilize any of the listed cell lines of claim 6. It is respectfully submitted that a search of the relevant art for assays that utilize these two elements could include any of the listed cell lines and, thus, no serious burden would be incurred by the Examiner in searching and examining claims relating to any species.

To better define and distinguish the invention, Applicants have submitted new claims which render this species election moot. Notwithstanding, in an earnest effort to be responsive to the Office Action, Applicants elect HEK293 as the species of cells with traverse. This species specifically reads on new claims 15, 18, 21, 27 and 29.

It is believed that the claims are in a condition for allowance and a notice to that effect is earnestly solicited. If the Examiner believes that a telephone conference would be of value, he is requested to call the undersigned counsel at the number listed below.

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Case No.: 21113P
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Any additional fees required in connection with this submission may be taken from Merck Deposit Account No. 13-2755.

Respectfully submitted,

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**MISC FEE TRANSMITTAL**

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First Named Inventor	Xia, et al.
Examiner Name	Fernandez
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METHOD OF PAYMENT Deposit AccountDeposit Account Number **13-2755**Deposit Account Name **Merck & Co., Inc.****The Director is authorized to:** Charge fee(s) indicated below Credit any overpayments Charge any additional fee(s) or underpayments of fee(s)
under 37 CFR 1.16 and 1.17**FEE CALCULATION****FEES****Large Entity**

Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	Surcharge - late filing fee or oath	
1051	130	Non-English Specification	
1812	2,520	For filing a request for <i>ex parte</i> reexamination	
1402	500	Filing a brief in support of an appeal	
1452	500	Petition to revive - unavoidable	
1453	1,500	Petition to revive - unintentional	
1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	Submission of Information Disclosure Statement	180
1809	790	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	790	For each additional invention to be examined (37 CFR 1.129(b))	
1840	130	Statutory Terminal Disclaimer under 37 CFR 1.321	

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By Joan E. Switzer Date 7/24/2007**TOTAL** **\$180****SUBMITTED BY****Complete (if applicable)**

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